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Access this article online
Website: www.ayujournal.org
DOI: 10.4103/0974-8520.85711
Quick Response Code:

Editorial

Need of new research methodology for Ayurveda

Research should be a process that converts data into information, information into knowledge and knowledge into wisdom. This is like transforming milk into ghee. It should be more balanced, comprehensive, and equally emphasizing in the literary field, experimental and clinical research. It should be able to impact the fields of academics, pharmacy and practice in a profound way. Present day Ayurvedic researches are failing in this aspect as they are unable to disseminate the knowledge gained from the exercises. Neither has the Ayurvedic teaching changed in the last 50 years nor have the textbooks been enriched with new researches.

Prof. RH Singh has made the same observation: "Ongoing research is proceeding in such a way that it is of more value to modern medicine than Ayurveda. It doesn't strengthen Ayurveda and Ayurvedic practice. Ayurvedic research outcomes have not trickled down to professionals use; neither do they benefit Ayurveda students or Practitioners".[1]

The current methodologies of research being applied in Ayurveda should be analyzed critically. Col. Chopra and many of his disciples have worked vastly on Herbal Pharmacology; however, except Reserpine, not much quotable evolved. CDRI (1965–1975) made a futile attempt to screen more than 2000 medicinal plants for their biological activities.[2] Again, this decade-long arduous and expensive study could not produce any results. Renowned pharmacologist Ranita Aiman, a disciple of Col. Chopra, while delivering the Chopra Memorial Oration[3] at AIIMS (1978), accepted this fact and suggested that perhaps the fundamental principles of Ayurveda have their significant role in defining the pharmacological activities of the plants. He called Ayurveda as a "Sleeping Beauty" and expected that some day it will awake, which is still elusive.

Predominantly, drug researches done in the field of Ayurveda in the last six decades have not enriched the Ayurvedic understanding or Ayurvedic concepts; however, these researches have created a better understanding of Ayurveda by the modern medical fraternity. The researches done in the last 60 years on Herbal Pharmacology have led confirmation of few concepts like Reverse Pharmacology and use of whole crude drugs in place of isolation of fractions for clinical trials. These leads have changed the mindset of researchers on herbal medicine. In the last decade, lot of interest has been generated in the medical world regarding Ayurveda and other traditional medicines. However, all these efforts lead to the enrichment of the knowledge of the modern medicine and inclusion of some Ayurvedic herbs in modern Materia Medica.

Since the last few years, it has been felt that there is a great need for a separate research methodology for Ayurveda and traditional medicines. WHO made an attempt in this regard in 2000[4] (WHO/TRM guidelines). However, this document has strongly recommended the exhaustive training of manpower of Ayurvedic institutions for research methodology. But the Government of India could not invest in the area, leading to production of non-qualified researchers in Ayurvedic Institutions who are supposed to be the backbone of Ayurvedic researches.

Various researchers started to feel that conventional clinical trial regimen is not fit for Ayurveda. Dr. Ram Manohar[5] has opined that Ayurveda is based on 5000 years of clinical practice. Hence, in place of conventional evidence-based medicine (EBM) clinical trials, practice-based clinical trials should be organized for Ayurveda.

It is my strong view that the regime of EBM clinical trial with its evidence-based hierarchy is not fit for Ayurvedic clinical trials. EBM clinical trial regimens limit the use of *Prakriti*, *Dosha Anubandha-Anubandhyatwa*, *Arambhaka* and *Anugami Dosha Vikalpa*, *Swanidana Prakopa Awaranajanya Prakopa*, *Prakriti SamaSamveta-Vikritishamasamveta*, *Amavashtha-pakvavastha*, which leads to variation of dose, dosage form, *Aushadhikala*, *Anupana*, *Sahapana*, *Pathyapathya*, therapeutics like *Panchakarma* procedures to be adopted, etc. Hence, if the desired results of actual clinical practices are to be recorded, the protocols should be prepared on these lines, supported by EBM suitable for the purpose. Ayurveda requires research in the areas of diagnostic principles of Ayurveda so that the Ayurvedic diagnosis can be made more pinpointed leading to more effective treatment strategies. Ayurveda is a pure science based on strict logical explanation, which is called *Darshana*. Ayurveda was always in the developmental phase like all the medical systems should be. In the last 2000 years, very less conceptual development in Ayurveda is evident. However, whatever has been added is less explained or obscure. Due to socio-political reasons, annotation (*Pratisamskara*) of Ayurvedic *samhitas* could not be done in the last 2000 years, which is mandatory every 1000 years. This means that the present *samhitas* are lagging behind to present the knowledge. Many of the diagnostic tools have been missed in between and new principles added like *Avarana* are unexplained.

The clinical trials in Ayurveda are needed for– a. Revalidation of facts enumerated in Ayurvedic classics leading to the explanation of fundamental principles; b. to find out better treatment modalities for the existing diseases and for newer diseases; c. to standardize the treatment procedures scientifically and d. to establish dose, duration, indication and side-effect profile of any given drug.

Hence, if Ayurveda has to provide the much needed support to the modern medicine in the management of the diseases, it requires more research in the areas of fundamental principles and diagnostic tools in place of drugs. For the purpose the modern research, methodology is not suitable and there is a need for a paradigm shift in the research methodology for Ayurveda. Though most of the renowned workers advocate the same, when it comes to practice it is not acceptable.

Dr. Nandini Kumar[6] has also opined that there is a need to stem the misuse of Indian traditional knowledge and there is dire need to gear ourselves up not only to show the science carried out in Ayurvedic way, but also to use modern science to produce interpretative evidence. Though ICMR advocates that protocols for Ayurvedic researches had been prepared in consultation with Ayurvedists, however, looking at those protocols it is evident that either the consulted Ayurvedists themselves are not clear of Ayurveda or their opinions have not been accepted.

Dr. Valiathan[7] and his team, and Dr. Ashok Vaidya and his team have started science initiatives in Ayurveda in order to explore Ayurvedic fundamentals like *Prakriti* in the parlance of genomics, etc. for the welfare of the humanity, which is most welcome. Genetic and epigenetic responses are being understood by some scientists in the light of *Prakriti*, *Oja*, *Bala* and *Rasayana*. However, still this is the beginning of the story and will not go far, if all the fundamental principles of Ayurveda are not taken into consideration while initiating these projects.

Ayurveda looks like a mesmerizing sleeping beauty for the modern medical scientists. This illusion is due to the failures of modern medicine in curing metabolic disorders, autoimmune disorders, cancer, etc. However, Ayurveda has much more to offer than *Oja*, *Bala* and *Prakriti*. There are many fundamental principles in Ayurveda which can be helpful in understanding the maladies in modern medicine. But more than these, there are many more fundamental principles described in Ayurveda in brief or summarily and they are still not understood properly by Ayurvedists themselves. So, while talking about a holistic approach of Ayurveda, the principles of Ayurveda should be applied in toto.

Now, it is high time to define Ayurveda itself; whether the use of herbs is Ayurveda or the use of herbs and other treatment modalities as per Ayurvedic principles is Ayurveda. Accordingly, the research methodology should be planned and adopted.

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